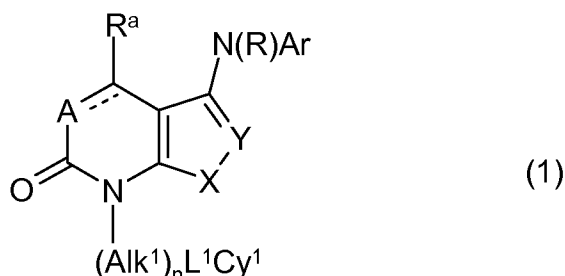


Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A compound of formula (1):



wherein:

the dashed line joining A and C(R^a) is present and represents a bond and

~~A is a N=atom or is a -C(R^b)= group; or the dashed line is absent and A is a -N(R^b)-, or -C(R^b)(R^e)-group;~~

~~R^a, R^b and R^e are each independently a hydrogen atom or an optionally substituted C₁₋₆ alkyl, CN, CO₂H, CO₂R⁺, CONH₂, CONHR⁺ or CONR⁺R² group;~~

R^a is a hydrogen atom or a C₁₋₄alkyl group;

R^b is a hydrogen atom;

~~R⁺ and R² are each, independently, an optionally substituted alkyl group;~~

R is a hydrogen atom or a straight or branched C₁₋₆ alkyl group;

~~X is an -O-, -S- or substituted nitrogen atom or a -S(O)-, -S(O₂)- or -NH- group;~~

X is an -S- atom;

~~Y is a nitrogen or substituted carbon atom or a -CH= group;~~

Y is a -CH= or -C(R¹⁰)= group wherein R¹⁰ is -CN, -CONH₂, -CONHet¹, -CON(R¹²)Het, -CON(R¹²)Alk⁵Het or -CO₂Alk⁶;

-NHet¹ represents pyrrolidinyl, piperazinyl, morpholinyl or piperidinyl;

Het represents cyclopentyl, cyclohexyl, pyrrolidinyl, piperazinyl, morpholinyl or piperidinyl;

R¹² represents hydrogen or C₁₋₆alkyl;

Alk⁵ is a straight or branched C₁₋₆alkylene chain;

Alk⁶ is a straight or branched C₁₋₈alkyl group;

n is zero or the integer 1;

~~Alk⁴ is an optionally substituted aliphatic or heteroaliphatic chain;~~

Alk¹ is -CH₂- or -CH₂CH₂-;

~~L¹ is a covalent bond or a linker atom or group;~~

~~Cy⁴ is a hydrogen atom or an optionally substituted cycloaliphatic, polycycloaliphatic, heterocycloaliphatic, polyheterocycloaliphatic, aromatic or heteroaromatic group;~~

Cy¹ is an optionally substituted C₃₋₇cycloalkyl, phenyl, thienyl, pyridyl or indolyl group, wherein the optional substituents on Cy¹ are selected from halogen, C₁₋₆alkyl, haloC₁₋₆alkyl, C₁₋₆alkoxy, haloC₁₋₆alkoxy, cyano, -CO₂CH₃, -CO₂C(CH₃)₃, nitro, amino, -NHCH₃, -N(CH₃)₂, -C(O)CH₃ and -NHCOCH₃;

~~Ar is an optionally substituted aromatic or heteroaromatic group;~~

~~or a pharmaceutically acceptable salt, solvate, hydrate, or N-oxide thereof.~~

Ar is an optionally substituted phenyl, wherein the optional substituents on Ar are selected from halogen, C₁₋₆alkyl, haloC₁₋₆alkyl, C₁₋₆alkoxy, haloC₁₋₆alkoxy, cyano, -CO₂CH₃, -CO₂C(CH₃)₃, nitro, amino, -NHCH₃, -N(CH₃)₂, -C(O)CH₃ and -NHCOCH₃;

~~or a pharmaceutically acceptable salt, solvate, hydrate or N-oxide thereof.~~

2. (Currently Amended) ~~A~~ The compound according to Claim 1 wherein R is a hydrogen atom.
3. (Currently Amended) ~~A~~ The compound according to Claim 1 wherein R^a is a hydrogen atom.
4. (Cancelled)
5. (Cancelled)

6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (currently amended) A ~~The~~ compound according to Claim 1 wherein n is the integer 1 ~~and Alk1 is an optionally substituted C₁₋₆alkylene chain.~~
10. (Cancelled)
11. (Currently Amended) A The compound according to Claim 1 wherein n is zero.
12. (Cancelled)
13. (Currently Amended) A ~~The~~ compound according to Claim 1 wherein Cy¹ is an optionally substituted C₃₋₇cycloalkyl group, wherein the optional substituents on Cy¹ are selected from halogen, C₁₋₆alkyl, haloC₁₋₆alkyl, C₁₋₆alkoxy, haloC₁₋₆alkoxy, cyano, -CO₂CH₃, -CO₂C(CH₃)₃, nitro, amino, -NHCH₃, -N(CH₃)₂, -C(O)CH₃, and -NHCOCH₃.
14. (Currently Amended) A ~~The~~ compound according to Claim 13 wherein Cy¹ is a cyclopropyl group.
15. (Currently Amended) A ~~The~~ compound according to Claim 1 wherein Cy¹ is an optionally substituted phenyl group, wherein the optional substituents on Cy¹ are selected from halogen, C₁₋₆alkyl, haloC₁₋₆alkyl, C₁₋₆alkoxy, haloC₁₋₆alkoxy, cyano, -CO₂CH₃, -CO₂C(CH₃)₃, nitro, amino, -NHCH₃, -N(CH₃)₂, -C(O)CH₃ and -NHCOCH₃.
16. (Currently Amended) A ~~The~~ compound according to Claim 15 wherein Cy¹ is a phenyl group.
17. (Cancelled)
18. (Cancelled)
19. (Currently Amended) A ~~The~~ compound ~~according to Claim 18~~ according to Claim 1 wherein Cy¹ is a thienyl, pyridyl or indolyl group.
20. (Cancelled)

21. (Currently Amended) A ~~The~~ compound according to Claim 1 wherein Y is a group ~~CH=~~ or ~~-C(R¹⁰)=~~.

~~R¹⁰ is an atom or group R^{10a} or -L⁶Alk⁵(R^{10a});~~

~~R^{10a} is a halogen atom, or an amino (-NH₂), substituted amino, nitro, cyano, hydroxyl (OH), substituted hydroxyl, formyl, carboxyl (-CO₂H), esterified carboxyl, thiol (-SH), substituted thiol, -COR¹¹, -CSR¹¹, -SO₃H, -SOR¹¹, -SO₂R¹¹, -SO₂NH₂, -SO₂NHR¹¹, -SO₂N(R¹¹)₂, -CONH₂, -CSNH₂, -CONHR¹¹, -CSNHR¹¹, -CON(R¹¹)₂, -CSN(R¹¹)₂, -N(R¹²)SO₂R¹¹, -N(SO₂R¹¹)₂, -N(R¹²)SO₂NH₂, -N(R¹²)SO₂NHR¹¹, -N(R¹²)SO₂N(R¹¹)₂, -N(R¹²)COR¹¹, -N(R¹²)CONH₂, -N(R¹²)CONHR¹¹, -N(R¹²)CON(R¹¹)₂, -N(R¹²)CSNH₂, -N(R¹²)CSNHR¹¹, -N(R¹²)CSN(R¹¹)₂, -N(R¹²)CSR¹¹, -N(R¹²)C(O)OR¹¹, -C=NR¹²(NR¹²), -SO₂NHet[†], -CONHet[†], -CSNHet[†], -N(R¹²)SO₂NHet[†], -N(R¹²)CONHet[†], -N(R¹²)CSNHet[†], -SO₂N(R¹²)Het, -Het, -CON(R¹²)Het, -CSN(R¹²)Het, -N(R¹²)CON(R¹²)Het, -N(R¹²)CSN(R¹²)Het, -N(R¹²)SO₂N(R¹²)Het, aryl or heteroaryl group;~~

~~R¹¹ is an -L⁶Alk³(R^{10a})_r, aryl or heteroaryl group;~~

~~Alk³ is a straight or branched C₁₋₃alkylene chain;~~

~~R¹² is a hydrogen atom or a straight or branched alkyl group;~~

~~-NHet[†] is an optionally substituted C₃₋₇cyclicamino group optionally containing one or more O or S atoms or -N(R¹²), -C(O) or -C(S) groups;~~

~~-Het is an optionally substituted monocyclic C₃₋₇carbocyclic group optionally containing one or more O or S atoms or -N(R¹²), -C(O), -S(O) or -S(O)₂ groups;~~

~~L⁶ is a covalent bond or a linker atom or group;~~

~~Alk⁵ is an optionally substituted straight or branched C₁₋₆alkylene, C₂₋₆alkenylene or C₂₋₆alkynylene chain, optionally interrupted by one, two or three O or S atoms or -S(O)_n or -N(R¹²) groups;~~

~~n is the integer 1 or 2; and~~

~~r is zero or the integer 1, 2, or 3.~~

22. (Cancelled)

23. (Currently Amended) A ~~The compound according to Claim 22-21~~ wherein R^{10} is a ~~CN, CONH₂, CONHR¹¹, CON(R¹¹)₂, CONHet[†], CON(R¹²)Het, CON(R¹²)Alk⁵Het or esterified carboxyl group.~~
24. (Cancelled)
25. (Currently Amended) A ~~The compound according to Claim 1 24~~ wherein Ar is an optionally substituted phenyl group, wherein the optional substituents on Ar are selected from halogen, C₁₋₃alkyl, C₁₋₃alkoxy, and -CN.
26. (Currently Amended) A ~~The compound according to Claim 25~~ wherein Ar is 3-methylphenyl wherein Ar is a phenyl group or a phenyl group substituted by one, two or three atoms or groups R^{10a} or $L^6Alk^5(R^{10a})_f$ where
- ~~— R^{10a} is a halogen atom, or an amino (-NH₂), substituted amino, nitro, cyano, hydroxyl (-OH), substituted hydroxyl, formyl, carboxyl (-CO₂H), esterified carboxyl, thiol (-SH), substituted thiol, COR¹¹, CSR¹¹, SO₃H, SOR¹¹, SO₂R¹¹, SO₃R¹¹, SO₂NH₂, SO₂NHR¹¹, SO₂N(R¹¹)₂, CONH₂, CSNH₂, CONHR¹¹, CSNHR¹¹, CON(R¹¹)₂, CSN(R¹¹)₂, N(R¹²)SO₂R¹¹, N(SO₂R¹¹)₂, N(R¹²)SO₂NH₂, N(R¹²)SO₂NHR¹¹, N(R¹²)SO₂N(R¹¹)₂, N(R¹²)COR¹¹, N(R¹²)CONH₂, N(R¹²)CONHR¹¹, N(R¹²)CON(R¹¹)₂, N(R¹²)CSNH₂, N(R¹²)CSNHR¹¹, N(R¹²)CSN(R¹¹)₂, N(R¹²)CSR¹¹, N(R¹²)C(O)OR¹¹, C=NR¹²(NR¹²), SO₂NHet[†], CONHet[†], CSNHet[†], N(R¹²)SO₂NHet[†], N(R¹²)CONHet[†], N(R¹²)CSNHet[†], SO₂N(R¹²)Het, Het, CON(R¹²)Het, CSN(R¹²)Het, N(R¹²)CON(R¹²)Het, N(R¹²)CSN(R¹²)Het, N(R¹²)SO₂N(R¹²)Het, aryl or heteroaryl group;~~
- ~~R^{11} is an $L^6Alk^3(R^{10a})_f$, aryl or heteroaryl group;~~
- ~~Alk³ is a straight or branched C₁₋₃alkylene chain;~~
- ~~R^{12} is a hydrogen atom or a straight or branched alkyl group;~~
- ~~-NHet[†] is an optionally substituted C₃₋₇cyclicamino group optionally containing one or more O or S atoms or N(R¹²), C(O) or C(S) groups;~~
- ~~-Het is an optionally substituted monocyclic C₃₋₇carbocyclic group optionally containing one or more O or S atoms or N(R¹²), C(O), S(O) or S(O)₂ groups;~~

~~L⁶ is a covalent bond or a linker atom or group;~~

~~Alk⁵ is an optionally substituted straight or branched C₁₋₆alkylene, C₂₋₆alkenylene or C₂₋₆alkynylene chain, optionally interrupted by one, two or three O or S atoms or S(O)_n or N(R¹²) groups;~~

~~n is the integer 1 or 2; and~~

~~r is zero or the integer 1, 2, or 3.~~

27. (Currently Amended) A compound which is

ethyl 3-(phenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[methyl(phenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-methoxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-[(3-trifluoromethoxyphenyl)amino]-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-fluoro-4-methoxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-[(3-tolyl)amino]-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;
ammonium 6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-(phenylamino)-7-phenylthieno[2,3-*b*]pyridin-6(7*H*)-one;
6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;
6-oxo-7-phenyl-3-phenylamino-6,7-dihydro-thieno[2,3-*b*]pyridine-2-carboxamide;
6-oxo-*N*-(2-piperidinoethyl)-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

6-oxo-3-(phenylamino)-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;
6-oxo-7-phenyl-3-phenylamino-6,7-dihydro-thieno[2,3-*b*]pyridine-2-carbonitrile;
3-(3-bromophenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-(3-chlorophenylamino)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-(2-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;
3-anilino-7-(2-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;
3-[(4-fluoro-3-methylphenyl)amino]-7-(4-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-(4-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(4-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-cyclopropyl-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile

7-cyclopropyl-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

7-cyclopropyl-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-cyclopropyl-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

7-(2-methylphenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-7-(2-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-anilino-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-7-(1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-[1-(methylsulfonyl)-1H-indol-5-yl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-(1-methyl-1H-indol-5-yl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

ethyl 3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-(cyclopropylmethyl)-N-methoxy-N-methyl-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 7-(cyclopropylmethyl)-3-[(2,4-difluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

7-(cyclopropylmethyl)-3-[(2,4-difluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-chloro-4-fluorophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(2,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(3,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(cyclopropylmethyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(2,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(cyclopropylmethyl)-3-[(3,4-dimethylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2-cyano-3-methylphenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-7-(cyclopropylmethyl)-6-oxo-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(3-bromophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(3-bromophenyl)amino]-7-(cyclopropylmethyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(3-thienyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 6-oxo-7-phenyl-3-(pyridin-3-ylamino)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2-chloropyridin-3-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(6-methylpyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-[(6-methylpyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(6-chloropyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-[(6-chloropyridin-2-yl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-[(2-cyanophenyl)amino]-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2-cyanophenyl)amino]-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-anilino-7-[4-(methylsulfinyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-[4-(methylthio)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-[4-(methylsulfonyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(3-methylphenyl)amino]-7-[4-(methylsulfonyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-6-oxo-7-[4-(pyrrolidin-1-ylmethyl)phenyl]-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-7-{4-[2-(2-methyl-1H-imidazol-1-yl)ethoxy]phenyl}-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-7-{4-[2-(2-methyl-1H-imidazol-1-yl)ethoxy]phenyl}-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-anilino-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-6-oxo-7-(4-vinylphenyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-anilino-7-[4-(1,2-dihydroxyethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-anilino-7-[4-(1,2-dihydroxyethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-7-(4-{{(2R)-2,3-dihydroxypropyl}oxy}phenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

ethyl 3-[(2,4-difluorophenyl)amino]-7-(2-nitrophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-7-(2-nitrophenyl)-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

ethyl 3-anilino-4-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-4-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-sulfonamide;

ethyl 3-anilino-7-[2-(2-methoxyethoxy)ethyl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-6-oxo-7-(tetrahydro-2H-pyran-2-ylmethyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-anilino-7-benzyl-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-benzyl-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbohydrazide;

ethyl 3-anilino-7-[4-(dimethylamino)phenyl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-anilino-7-[4-(dimethylamino)phenyl]-N-methoxy-N-methyl-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-[4-(dimethylamino)phenyl]-N-[3-(1H-imidazol-1-yl)propyl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-[4-(dimethylamino)phenyl]-6-oxo-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-N,N-dimethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-N,N-diethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-N-methoxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[3-(4-methylpiperazin-1-yl)propyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[3-(1H-imidazol-1-yl)propyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(diethylamino)ethyl]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(diethylamino)ethyl]-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-ethyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(2-morpholin-4-ylethyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-[2-(dimethylamino)ethyl]-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(3-morpholin-4-ylpropyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-N-methoxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-N-(2-piperidin-1-ylethyl)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-anilino-N-(2-hydroxy-1,1-dimethylethyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

ethyl 3-[(3-chloro-2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-5-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyanophenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(2-cyano-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(4-chlorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(4-fluoro-3-methylphenyl)amino]-7-(3-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

ethyl 3-[(3-methylphenyl)amino]-7-(3-methylphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxylate;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3,5-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-nitrophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-{[2-(trifluoromethoxy)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,6-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-{[2-(difluoromethoxy)phenyl]amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,6-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(4-fluoro-2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-({3-[(trifluoromethyl)thio]phenyl}amino)-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-bromo-4-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-bromo-2-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

6-oxo-7-phenyl-3-{[3-(trifluoromethoxy)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-{[3-(methylthio)phenyl]amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-ethylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-fluorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(4-methoxyphenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2,4-difluorophenyl)amino]-7-(4-{[(2S)-2,3-dihydroxypropyl]oxy}phenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-acetylphenyl)-3-[(3-chlorophenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(2-chlorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(2-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

3-[(3-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carbonitrile;

7-(4-fluorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{[3-(trifluoromethyl)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3,5-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-bromophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{[2-(trifluoromethoxy)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-{[2-(difluoromethoxy)phenyl]amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2,6-dichlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-bromo-4-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-{[3-(methylthio)phenyl]amino}-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-{[3-(trifluoromethoxy)phenyl]amino}-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

6-oxo-7-phenyl-3-({3-[(trifluoromethyl)thio]phenyl}amino)-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-ethylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

7-(2-chlorophenyl)-3-[(3-methylphenyl)amino]-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(4-fluoro-3-methylphenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyanophenyl)amino]-7-(4-fluorophenyl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-hydroxyphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(3-cyanophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;

3-[(2-cyano-5-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(3-chloro-4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(4-fluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(3-chlorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbothioamide;

N,N-diethyl-3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboximidamide;

3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboximidamide;

3-[(2,4-difluorophenyl)amino]-N-(2-hydroxy-2-methylpropyl)-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

methyl 2-({3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridin-2-yl} carbonyl)hydrazinecarboxylate;

3-[(3-chlorophenyl)amino]-7-phenylthieno[2,3-*b*]pyridin-6(7H)-one;

ethyl 3-anilino-7-[4-(1-hydroxy-1-methylethyl)phenyl]-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

ethyl 3-[(2,4-difluorophenyl)amino]-7-{4-[(methylsulfonyl)amino]phenyl}-6-oxo-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxylate;

3-[(4-fluoro-3-methylphenyl)amino]-N-hydroxy-N-methyl-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

2-acetyl-3-anilino-7-phenylthieno[2,3-*b*]pyridin-6(7H)-one;

N,N-diethyl-3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboximidamide;

3-anilino-6-oxo-7-pyridin-3-yl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carbonitrile;

3-anilino-6-oxo-7-pyridin-3-yl-6,7-dihydrothieno[2,3-*b*]pyridine-2-carboxamide;

3-anilino-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;
 3-anilino-7-phenyl-2-(piperidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;
 3-anilino-2-[(4-ethylpiperazin-1-yl)carbonyl]-7-phenylthieno[2,3-b]pyridin-6(7H)-one;
 3-anilino-7-[4-(dimethylamino)phenyl]-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;
 3-[(2,4-difluorophenyl)amino]-2-(morpholin-4-ylcarbonyl)-7-phenylthieno[2,3-b]pyridin-6(7H)-one;
 3-{[6-oxo-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)-6,7-dihydrothieno[2,3-b]pyridin-3-yl]amino} benzonitrile;
 3-[(3-chlorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;
 3-[(2,4-difluorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one;
 3-[(4-fluorophenyl)amino]-7-phenyl-2-(pyrrolidin-1-ylcarbonyl)thieno[2,3-b]pyridin-6(7H)-one; or
 3-[(2,4-difluorophenyl)amino]-6-oxo-7-phenyl-N-pyrrolidin-3-yl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide;
 or a pharmaceutically acceptable salt solvate, hydrate, or N-oxide thereof.

28. (Previously Presented) A pharmaceutical composition comprising a compound of Claim 1 together with one or more pharmaceutically acceptable carriers, excipients or diluents.

29. (Currently Amended) ~~A~~ The compound according to Claim 27 which is 3-[(3-methylphenyl)amino]-6-oxo-7-phenyl-6,7-dihydrothieno[2,3-b]pyridine-2-carboxamide.

30. (Previously Presented) A pharmaceutical composition comprising the compound according to Claim 29 together with one or more pharmaceutically acceptable carriers, excipients or diluents.

31. (Previously Presented) A method for treating a mammal suffering from rheumatoid arthritis comprising administering to the mammal a therapeutically effective amount of a compound according to Claim 29.